

AWIPS INFORMATION NOTE 7 (for Electronics Systems Analysts)
Engineering Division
W/OSO31: WJB/FJZ

SUBJECT : Advanced Weather Interactive Processing System (AWIPS) Modem Settings

PURPOSE: To verify the AWIPS modem settings.

BACKGROUND

The AWIPS modems are factory set by Litton PRC. The modem settings shown in attachments 1 through 3 are provided for reference purposes only and include Synchronous Dial-Up , Synchronous Dedicated, and Asynchronous Dial-Up Configurations. Figure 1 may be used to help locate the various AWIPS modems in the modem nest.

The Local Data Acquisition and Dissemination (LDAD) modem settings are not included in this note but will be issued at a later date. A **DRAFT** copy of the *LDAD Systems Manager Manual* is located at the following URL: <http://ls1-fslc.fsl.noaa.gov/restricted/SystemManagers.html>. Section 6.5 and 6.6 contain the LDAD dial-out modem configurations.

The NEXRAD modem configurations can be found in following locations:

PUP	Engineering Handbook 6-530	Paragraph 6-6.3
RPG	Engineering Handbook 6-520	Paragraph 6-6.4

TECHNICAL ASSISTANCE

Please refer any technical questions regarding this note to Walid Bannoura, W/OSO31, at 301-713-1847x120 or Franz Zichy, W/OSO321, at 301-713-1833 x128.

Attachment

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GENERAL

The modem front panel button functions are described below and are shown as they appear when facing the rack (modem rotated 90 degrees from the stand alone version).



Return key - when pressed within a branch of the menu, changes the Liquid Crystal Display (LCD) to the branch title screen (e.g. TERMINAL OPT'S). When pressed at a branch title screen, changes the LCD to the home screen (e.g. DATA 14400 T/D?).



Down key - moves from branch to branch from the main menu and selects individual setting options within the branches.



Across key - moves the screen along the branches of the modem menu tree. It also will move the cursor across data entry menus one character (or digit) at a time (e.g. S-Reg menus).



Enter key - selects the item displayed on the LCD as the current setting (if the screen displayed an = sign, it was already the current setting), or initiates an action (as in Reinit Memory?).

Attachment 1: Synchronous Dial-up Configuration

Synchronous Dial-up Line Configuration Procedure		Parameter	Setting	Parameter	Setting
1.	Ensure the modem (nest) power is on.	DTE	9.6 COMMND	ACU OPTIONS	
2.	Press the Return  button to highlight the display.	PhaseJitter	0dg	ACU Select	V25b
a.	Depress the Across  button until 'Select Options = 1' is displayed.	Select Options	3	AT Form	SyncData
b.	Depress the Down  button twice until 'Select Options = 3' is displayed. Depress Enter  . This presets most of the modem parameters.	Save Changes	3	V25Form	Bitsync
3.	Press the Return  button to return to the beginning of the parameter list.	Power Up In	3	NoACU Form	Sync
4.	Depress the Across  button to display each parameter under Level One. If the saved configuration does not match the setting of the adjacent table depress the Down  arrow until it is displayed. Depress Enter  to save change. At 'Enter Phone #' enter the telephone of the RPG	Reint Memory?		Default Dial	Off
5.	At the end of Level One depress the Return  button to advance to TEST OPTIONS. Repeat step 4.	Dial From #	1	Answer	Ring #2
6.	At the end of TEST OPTIONS depress the Return  button to advance to MODULATION OPTIONS. Repeat step 4.	View Phone #	1	Async Echo	On
7.	At the end of MODULATION OPTIONS depress the Return  button to advance to RESTORAL OPTIONS. Repeat step 4.	Enter Phone#	8211901	Char Length	10
8.	At the end of RESTORAL OPTIONS depress the Return  button to advance to EC/DC OPTIONS. Repeat step 4.	Link Phone#		V25 Char	ASCII
9.	At the end of EC/DC OPTIONS depress the Return  button to advance to ACU OPTIONS. Repeat step 4.	Enter Then Dial		Sync Idle	Char
10.	At the end of ACU OPTIONS depress the Return  button to advance to TERMINAL OPTIONS. Repeat step 4.	Auto Redial	Off	V25Resp	V25bis
11.	At the end of TERMINAL OPTIONS depress the Return  button to advance to TELCO OPTIONS. Repeat step 4.	S-Reg 000	0	Parity	V.25bis
12.	At the end of TELCO OPTIONS depress the Return  button to advance to DIALING OPTIONS. Repeat step 4.	AT Msg	Before CD		
13.	At the end of DIALING OPTIONS depress the Return  button twice to return to Level one.	RsltCode	Enable		
14.	Depress the Across  button until 'Save Changes = 1' is displayed. Depress the Down  button twice until 'Save Changes = 3' is displayed. Depress Enter  .	RsltForm	Verbose		
15.	Depress the Return  button twice.	Con Msg	DTE Rate		
16.	Depress the Across  button until 'Power Up In = 1' is displayed. Depress the Down  button twice until Power Up In = 3' is displayed. Depress Enter  .	Rel Msg	Off		
17.	Depress the Return  button twice.	LPDA2 Addr	FF		
		LPDA2 ID	326x		
		LPDA2 Det	Enab		
		Call Progress	4		
		TEST OPTIONS		TERMINAL OPTIONS	
		Test	End Test	DTE Rate	14.4
		Accept RDL	On	Flow	XON/XOFF
		LAL Busy Out	Off	Speed Conver	On
		MODULATION OPTIONS		DTR	High
		Line	Dial	RTS	Normal
		Mod	V32bis Auto	CTS	Normal
		Auto Type	CCITT	Rts/Cts	0
		Low Speed	Bell	DCD	Normal
		Max Rate	14.4	RemRTS/DCD	Codex
		Min Rate	4800	DCD Loss Dis	Off
		V.34 Asym	Off	DSR	High
		Fast Call	Off	Ovewrspeed	1%
		AdaptiveRate	On	DTR Delay	S25
		Mode	Originate	DTE Ct 140	Off
		Clock	Internal	DTE Ct 141	Off
		Retrain	High BER	DTE Pin 25	Test
		Longspace	Off	Ext Select	Off
		PSTN	Off	Ext Cntrl	Pin 14
		Guard Tone	Off	Inactivity	S30
		RESTORAL OPTIONS		TELCO OPTIONS	
		Rest	Off	Telco	RJ11C
		EC/DC OPTIONS		LL Tx Level	0
		Mode	Normal	Line Compen	Off
		Buffers	Regular	Speaker	Dialing
		EC	V.42	Volume	High
		DC	Enabled	Netwrk Comp	Off
		Break	Standard	DIALING OPTIONS	
		Modem Flow	On	Pause Delay	3
		Delay	Off	Dial Wait	6
		EC ID	Default	Dial	Tone
				Call Timeout	60
				Blind Dial	S6
				Pulse Cycle	40%
				Tone Length	72

Attachment 2: Synchronous Dedicated Line Configuration

Synchronous Dedicated Line Configuration Procedure		Parameter	Setting	Parameter	Setting
1.	Ensure the modem (nest) power is on.	DTE	9.6 COMMND	ACU OPTIONS	
2.	Press the Return  button to highlight the display.	PhaseJitter	0dg	ACU Select	V25b
a.	Depress the Across  button until 'Select Options = 1' is displayed.	Select Options	3	AT Form	SyncData
b.	Depress the Down  button twice until 'Select Options = 3' is displayed. Depress Enter  . This presets most of the modem parameters.	Save Changes	3	V25Form	Bitsync
3.	Press the Return  button to return to the beginning of the parameter list.	Power Up In	3	NoACU Form	Sync
4.	Depress the Across  button to display each parameter under Level One. If the saved configuration does not match the setting of the adjacent table depress the Down  arrow until it is displayed. Depress Enter  to save change.	Reint Memory?		Default Dial	Off
5.	At the end of Level One depress the Return  button to advance to TEST OPTIONS. Repeat step 4.	Dial From #	1	Answer	Manual
6.	At the end of TEST OPTIONS depress the Return  button to advance to MODULATION OPTIONS. Repeat step 4.	View Phone #		Async Echo	On
7.	At the end of MODULATION OPTIONS depress the Return  button to advance to RESTORAL OPTIONS. Repeat step 4.	Enter Phone#		Char Length	10
8.	At the end of RESTORAL OPTIONS depress the Return  button to advance to EC/DC OPTIONS. Repeat step 4.	Link Phone#		V25 Char	ASCII
9.	At the end of EC/DC OPTIONS depress the Return  button to advance to ACU OPTIONS. Repeat step 4.	Enter Then Dial		Sync Idle	Char
10.	At the end of ACU OPTIONS depress the Return  button to advance to TERMINAL OPTIONS. Repeat step 4.	Auto Redial	Off	V25Resp	V25bis
11.	At the end of TERMINAL OPTIONS depress the Return  button to advance to TELCO OPTIONS. Repeat step 4.	S-Req 000	0	Parity	V.25bis
12.	At the end of TELCO OPTIONS depress the Return  button to advance to DIALING OPTIONS. Repeat step 4.	AT Msg	Before CD		
13.	At the end of DIALING OPTIONS depress the Return  button twice to return to Level one.	RsltCode	Enable		
14.	Depress the Across  button until 'Save Changes = 1' is displayed. Depress the Down  button twice until Save Changes = 3 is displayed. Depress Enter  .	RsltForm	Verbose		
15.	Depress the Return  button twice.	Con Msg	DTE Rate		
16.	Depress the Across  button until 'Power Up In = 1' is displayed. Depress the Down  button twice until 'Power Up In = 3' is displayed. Depress Enter  .	Rel Msg	Off		
17.	Depress the Return  button twice.	LPDA2 Addr	FF		
		LPDA2 ID	326x		
		LPDA2 Det	Enab		
		Call Progress	4		
		TEST OPTIONS			
		Test	End Test		
		Accept RDL	On		
		LAL Busy Out	Off		
		MODULATION OPTIONS			
		Line	4W Lease		
		Mod	V32bis Auto		
		Auto Type	CCITT		
		Low Speed	Bell		
		Max Rate	14.4		
		Min Rate	4800		
		V.34 Asym	Off		
		Fast Call	Off		
		AdaptiveRate	On		
		Mode	Originate		
		Clock	Internal		
		Retrain	High BER		
		Longspace	Off		
		PSTN	Off		
		Guard Tone	Off		
		RESTORAL OPTIONS			
		Rest	Off		
		L to D	Low/Fast		
		D to L	Manual		
		HoldDialine	Off		
		Ans Rest	LL Fail		
		EC/DC OPTIONS			
		Mode	Normal		
		Buffers	Regular		
		EC	V.42		
		DC	Enabled		
		Break	Standard		
		Modem Flow	On		
		Delay	Off		
		EC ID	Default		
		TELCO OPTIONS			
		Telco	RJ45S		
		LL Tx Level	-15		
		Line Compen	Off		
		Speaker	Dialing		
		Volume	Medium		
		Netwrk Comp	Off		
		DIALING OPTIONS			
		Pause Delay	3		
		Dial Wait	2		
		Dial	Tone		
		Call Timeout	60		
		Blind Dial	S6		
		Pulse Cycle	40%		
		Tone Length	72		

Attachment 3: Asynchronous Dial-Up Modem Configuration

Asynchronous Dial-Up Modem Configuration Procedure		Parameter	Setting	Parameter	Setting
1. Ensure the modem (nest) power is on.					
2. Press the Return  button to highlight the display.					
a. Depress the Across  button until 'Select Options = 1' is displayed.					
b. Depress Enter  . This presets most of the modem parameters. Power Up In=1					
3. Press the Return  button to return to the beginning of the parameter list.					
4. Depress the Across  button to display each parameter under Level One. If the saved configuration does not match the setting of the adjacent table depress the Down  arrow until it is displayed. Depress Enter  to save change. At 'Enter Phone #' enter the telephone of the RPG.					
5. At the end of Level One depress the Return  button to advance to TEST OPTIONS. Repeat step 4.					
6. At the end of TEST OPTIONS depress the Return  button to advance to MODULATION OPTIONS. Repeat step 4.					
7. At the end of MODULATION OPTIONS depress the Return  button to advance to RESTORAL OPTIONS. Repeat step 4.					
8. At the end of RESTORAL OPTIONS depress the Return  button to advance to EC/DC OPTIONS. Repeat step 4.					
9. At the end of EC/DC OPTIONS depress the Return  button to advance to ACU OPTIONS. Repeat step 4.					
10. At the end of ACU OPTIONS depress the Return  button to advance to TERMINAL OPTIONS. Repeat step 4.					
11. At the end of TERMINAL OPTIONS depress the Return  button to advance to TELCO OPTIONS. Repeat step 4.					
12. At the end of TELCO OPTIONS depress the Return  button to advance to DIALING OPTIONS. Repeat step 4.					
13. At the end of DIALING OPTIONS depress the Return  button twice to return to Level one.					
14. Depress the Across  button until 'Save Changes = 1' is displayed. Depress Enter  .					
15. Depress the Return  button twice.					
16. Depress the Across  button until 'Power Up In = 1' is displayed. Depress Enter  .					
17. Depress the Return  button twice.					

Figure 1 - Typical AWIPS Modem Nest Configuration

